WILDLIFE MANAGEMENT UNIT 19 - WEST DESERT

Boundary Description

Tooele, Utah, Juab, and Millard counties - Boundary begins at the Utah-Nevada state line and I-80 in Wendover; east on I-80 to the Dugway road at Rowley Junction; south on this road to the Pony Express Road; east on this road to SR-36; north on SR-36 to SR-73; east on SR-73 to I-15; south on I-15 to SR-132 at Nephi; west on SR-132 to US-6; southwest on US-6 to its junction with US-50 near Delta; west on US-50 & 6 to the Utah-Nevada state line; north along this state line to I-80 at Wendover.

Management Unit Description

Management unit 19 is subdivided into three smaller subunits, Deep Creek, Vernon, and Tintic. All trend studies within these subunits were sampled in 2002. The Deep Creek subunit is numbered 19A, and all studies within that unit are numbered accordingly. The Vernon and Tintic subunits are numbered as 19B, and the trend studies within those boundaries are numbered accordingly.

Of the total land area within unit 19, the majority are categorized as either year-long or winter range. Winter, year-long, and summer ranges respectively make up 61%, 23%, and 16% of the area. The vast majority of the land within unit 19 is managed by the Bureau of Land Management.

As with nearly all of the management units within the state, the deer herds are managed to achieve a buck to doe ratio of 15:100 with 30% of the bucks being 3-point or better. The management plan calls for a wintering population of 11,200 deer. Elk are less abundant in this management unit compared to the other units within the Central region administrative area. Most of the elk in this unit are found on the Deep Creek's (subunit 19A).

Population and Habitat Management Strategies

The Vernon subunit is currently managed under the limited entry hunting status. Other portions of unit 19 are open to general season hunting for deer. Limiting factors that may prevent management objectives being reached include crop depredation, habitat, and predation by cougars. To minimize these limiting factors, several habitat management strategies will be used. These are: 1) monitor the permanent range trend studies throughout the unit; 2) maintain and/or enhance forage production through direct range improvements throughout the unit; and 3) work with private and federal agencies to maintain and protect critical summer ranges from future losses and degradation (Deer Herd Unit Management Plan 2001).

WILDLIFE MANAGEMENT UNIT 19 - WEST DESERT

SUBUNIT 19B - WEST DESERT, VERNON

Boundary Description

> **Tooele and Juab counties** - Boundary begins at SR-36 and the Pony Express Road; north on SR-36 to SR-73; east on SR-73 to I-15; south on I-15 to SR-132 at Nephi; west on SR-132 to US-6; west on US-6 to SR-174; northwest on SR-174 to the Dugway Valley Road; north on this road to the Pony Express Road; northeast on the road to SR-36 and beginning point.

Management Unit Description

The 19B Vernon sub unit encompasses the Simpson Mountains, Sheeprock Mountains, East & West Tintic Mountains, and the Gilson Mountains. Trend studies are concentrated primarily in the East Tintic and the Sheeprock Mountains sampling the limited summer ranges of these areas. Due to the relative low elevation of these desert mountain ranges, quality summer range is limited. The Sheep Rock Mountains are administered by the Wasatch National Forest while the East Tintic Mountains are primarily privately owned.

Predation on fawns has been a major problem on the Vernon subunit. In 1996, a predator management plan was implemented and several coyote dens were destroyed in the immediate vicinity of prime deer fawning areas. The Tintic mountains have other problems, including a lack of quality summer range. Large wildfires during the last 6 years have burned large acreages of this unit. Much of the burned areas have been seeded and may offer better forage quality in the future. The Vernon subunit was closed to all hunting in 1997, and reopened as a limited entry hunting unit in 2000. In 2002, 149 limited entry deer tags were permitted which included archery, muzzleloader, and rifle tags.

Range Trend Studies

Eighteen studies were established in the Vernon sub unit in 1983. Eight studies are located on winter range and the other 10 studies are located on summer range. All studies were reread in the summer of 1989. In 1997, all studies were read again with the exception of South Pine Canyon (19B-8) and Old Canyon (19B-17). South Pine Canyon, a trend study established to monitor winter range, was not reread because a fire removed all browse species from the site. Old Canyon was not reread due to a lack of wildlife use. In 2002, most of the studies were resampled with the exception of North Oak Brush Canyon (#9), Water Canyon (#11), and Black Rock Canyon (#14). After consulting with the regional biologist, these studies were suspended in 2002 as they no longer represent key areas or are not representative of critical deer range. Old Canyon (#17), which was not sampled in 1997, was also suspended in 2002. Maps, a site narrative with trend assessments, and data tables for each study follow.

SUMMARY

WILDLIFE MANAGEMENT UNIT 19B - WEST DESERT, VERNON

Of the 17 range trend studies found within management unit 19B, 14were reread during the summer of 2002, and three were suspended. Suspended sites included North Oak Brush Canyon (#9), Water Canyon (#11), and Black Rock Canyon (#14). These studies were suspended as they are no longer representative of critical big game ranges. All of these studies lie on steep north and east aspects in very thick browse communities and have minimal wildlife use.

In 2002, range trends were driven largely by drought conditions. Weather station data collected at Vernon show that since 1980, most years have been either at or above normal in total annual precipitation. Exceptions include a dry period from 1988-1990, and the current drought cycle that began in 1999. Seasonal distribution of precipitation is perhaps more important than total annual precipitation. The Vernon weather data show that the fall of 2001, winter of 2001-02, and spring of 2002 were below normal in precipitation at 90%, 61%, and 70% of normal respectively. Spring precipitation (March-May) is especially important as the cool season perennial species start to grow.

Of the 14 studies that were sampled in 2002, nine sites had downward herbaceous trends. Drought conditions combined with Mormon cricket use resulted in herbaceous species, primarily forbs, being less abundant in frequency, cover, or both. Crickets were encountered on 9 of the 14 sites sampled in 2002. The sum of nested frequency value for perennial species declined on 11 of the 14 sites for both grasses and forbs in 2002. The decrease in grass frequency was not as dramatic as that for forbs. To illustrate how severe the loss of forbs was in 2002, seven sites in this unit had sum of nested frequency decreases of 70% or more, with two sites being over 90%. Soil trends are also heavily influenced by drought, with 9 of the 14 studies sampled in 2002 showing downward soil trends. Bare soil often increases during dry conditions as vegetation and litter cover decrease. As protective cover provided by herbaceous vegetation and litter declines, more soil is exposed to erosive forces and often show increased soil loss. No studies in 2002 had upward trends for either soils or the herbaceous species.

Browse trends were less effected by drought in 2002. Nine sites had a stable trend, and only three had downward trends. The browse trend was slightly up at Lee's Creek (#6) as Wyoming big sagebrush increased in density, and up at Dennis Spring (#13) where a wildfire in 2001 burned out an overly abundant mountain big sagebrush population that was suppressing the understory. Key population parameters that are used in determining browse trends include decadence, vigor, and reproduction (number of seedling and young plants coming into the population). Vigor actually improved in key browse populations on one-half of the sites in 2002, while decadence increased in key browse populations on one-half of the sites. Reproduction within the key browse populations remains low on most sites, with the exception of Lee's Creek (#6), Dennis Spring (#13) and Furner Valley (#18). Although few of the studies have downward browse trends in 2002, low reproduction and increased decadence at many sites show that shrubs populations are stressed due to the drought, and could become more negatively effected if precipitation patterns do not improve soon.

A summary table of each study and it's associated trends follows.

Trend Summary

	Category	1983	1989	1997	2002
19B-1 Sabie Mountain	soil	est	5	4	1
	browse	est	3	2	3
	herbaceous understory	est	3	2	1
19B-2 Upper Little Valley	soil	est	3	4	1
	browse	est	3	3	2
	herbaceous understory	est	2	3	1
19B-3 Bennion Creek	soil	est	3	4	1
	browse	est	4	2	3
	herbaceous understory	est	3	3	1
19B-4 Harker Canyon	soil	est	4	4	1
	browse	est	3	3	3
	herbaceous understory	est	5	1	1
19B-5 West Government Creek	soil	est	4	4	1
	browse	est	5	3	3
	herbaceous understory	est	4	3	1
19B-6 Lee's Creek	soil	est	2	3	3
	browse	est	3	5	4
	herbaceous understory	est	4	3	3
19B-7 Judd Creek	soil	est	3	3	1
	browse	est	2	4	2
	herbaceous understory	est	3	1	1
19B-8 South Pine Canyon	soil	est	3	NR	1
	browse	est	3	NR	1
	herbaceous understory	est	4	NR	1
19B-10 Sioux Pass	soil	est	3	3	2
	browse	est	2	3	3
	herbaceous understory	est	3	3	3

(1) = down, (2), slightly down, (3) = stable, (4) = slightly up, (5) = up
(est) = established, (n/a) = no trend, (susp) = suspended, (NR) = not read

	Category	1983	1989	1997	2002
19B-12 Sunrise Canyon	soil	est	3	3	3
	browse	est	3	3	3
	herbaceous understory	est	2	3	3
19B-13 Dennis Spring	soil	est	3	3	1
	browse	est	5	3	4
	herbaceous understory	est	3	3	2
19B-15 Upper Broad Canyon	soil	est	3	2	3
	browse	est	2	3	3
	herbaceous understory	est	3	3	3
19B-16 Nephi Dump	soil	est	3	3	3
	browse	est	2	2	3
	herbaceous understory	est	4	5	3
19B-18 Furner Valley	soil	est	4	3	3
	browse	est	2	2	3
	herbaceous understory	est	4	3	2
SUSPENDED STUDIES					
19B-9 North Oak Brush Canyon	soil	est	3	4	susp
	browse	est	3	3	susp
	herbaceous understory	est	3	3	susp
19B-11 Water Canyon	soil	est	3	3	susp
	browse	est	2	3	susp
	herbaceous understory	est	5	1	susp
19B-14 Black Rock Canyon	soil	est	3	3	susp
	browse	est	3	3	susp
	herbaceous understory	est	5	1	susp

(1) = down, (2), slightly down, (3) = stable, (4) = slightly up, (5) = up
(est) = established, (n/a) = no trend, (susp) = suspended, (NR) = not read